



1764

Docket No. 2000-022R1
PATENT

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on 8/14/02.

BY: Annie Wong
Annie Wong

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Bergh et al.
Serial No.: 09/801, 390
Filed: March 7, 2001
For: Parallel Flow Process Optimization Reactor

Group Art Unit: 1764

Examiner: Unknown

Assistant Commissioner for Patents
Washington, D.C. 20231

TRANSMITTAL LETTER

Sir:

Transmitted herewith (check all that apply):

- | | |
|--|--|
| <input type="checkbox"/> Preliminary Amendment | <input checked="" type="checkbox"/> Information Disclosure Statement |
| <input type="checkbox"/> Response/Amendment | <input type="checkbox"/> Petition Under 37 CFR 1.97(d)(2) |
| <input type="checkbox"/> Response/Amendment After Final | <input type="checkbox"/> Formal Drawings |
| <input type="checkbox"/> Supplemental Amendment | <input type="checkbox"/> Declaration Under 37 CFR 1.131 |
| <input type="checkbox"/> Affidavits/Declarations | <input type="checkbox"/> Declaration Under 37 CFR 1.132 |
| <input type="checkbox"/> Declaration and Power of Attorney | <input type="checkbox"/> Terminal Disclaimer |
| <input type="checkbox"/> Supplemental Declaration | <input type="checkbox"/> Small Entity Statement |
| <input type="checkbox"/> Associate Power of Attorney | <input type="checkbox"/> Request for Refund |
| <input type="checkbox"/> Change of Correspondence Address | <input type="checkbox"/> Appeal |
| <input type="checkbox"/> Associate Power of Attorney | <input type="checkbox"/> Petition to Correct "Date-In" Date |
| <input type="checkbox"/> Response to Missing Parts | <input type="checkbox"/> Request to Correct Filing Receipt |

to be filed in the above-identified patent application.

☒ No fee is required.

☒ The Commissioner is hereby authorized to charge payment of any additional filing fees required under 37 C.F.R. § 1.16, in connection with the paper(s) transmitted herewith, or credit any overpayment of same, to Deposit Account No. 50-0496.

A duplicate copy of this Transmittal Letter is transmitted herewith.

RECEIVED
AUG 27 2002
TC 1700

Respectfully submitted,

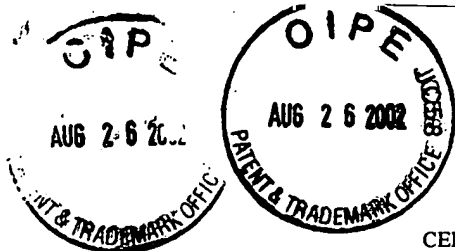


Paul A. Stone
Reg. No. 38,628
Attorney for Applicant(s)

Date: Aug. 14, 2002

Symyx Technologies, Inc.
3100 Central Expressway
Santa Clara, California 95051
Tel.: (408) 773-4027
Fax: (408) 773-4029

RECEIVED
AUG 27 2002
TC 1700



CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231

on 8/14/02

By: Annie Wong
Annie Wong

Docket No. 2000-022R1
Patent

RECEIVED
AUG 27 2002
TC 1700

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Bergh et al.

Serial No.: 09/801,390

Filed: 3/7/01

For: Parallel Flow Process Optimization
Reactor

Group Art Unit: 1764

Examiner: Unknown

Assistant Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

Applicants submit herewith patents, publications and other information of which they are aware, which they believe an examiner may consider to be material to the patentability of the claims of this application, and in respect of which there may be a duty to disclose in accordance with 37 C.F.R. § 1.56.

While this Information Disclosure Statement may contain "material" information pursuant to 37 C.F.R. § 1.56, it is not intended to constitute an admission that any patent, publication or other information referred to herein is either "material" or "prior art" to the invention disclosed and claimed in the above-referenced application unless specifically designated as such. Applicants specifically reserve the right, where appropriate, to avoid or antedate any such reference by the appropriate arguments or showings under 37 C.F.R. § 1.131 and § 1.608, or any other appropriate means.

A completed PTO Form 1449 listing each reference is submitted herewith, and it is respectfully requested that an Examiner initialed copy of the PTO Form 1449 be returned to the undersigned. A copy of each reference therein listed accompanies this Information Disclosure Statement.

This Information Disclosure Statement is being filed within three months of the filing or entry of the national stage of this application, or before the mailing of a first Office Action on the merits, whichever is later. No fee is required under 37 C.F.R. § 1.97(b). However, in the event that more than 90 days from filing have elapsed and a first Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the fee required under 37 C.F.R. 1.17(p) to Deposit Account Number 50-0496.

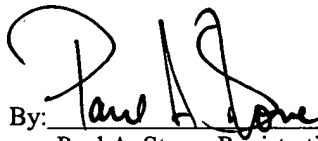
The Examiner is hereby requested to consider these references and other information and make them of record in the above-referenced application. Applicants respectfully submit that the claims of this application are patentable over the above-cited references and information. Examination and allowance of this application at an early date are requested.

Respectfully submitted,

Date:

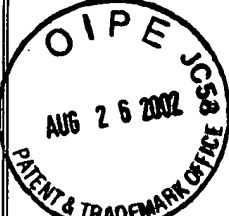
Aug. 14, 2002

By:



Paul A. Stone, Registration No. 38,628


Symyx Technologies, Inc.
3100 Central Expressway
Santa Clara, CA 95051
Tel: (408) 773-4027
Fax: (408) 773-4029

INFORMATION DISCLOSURE CITATION PTO-1449 	ATTORNEY'S DOCKET NO.: 2000-022R1	APPLICATION NO.: 09/801,390
	APPLICANT: Bergh et al.	
	FILING DATE: 3/7/2001	GROUP: 1764

RECEIVED
 AUG 27 2002
 TC 1700

US PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	3,431,077	3/04/69	Danforth	23	253	7/18/66
	3,536,452	10/27/70	Norton et al.	23	259	12/10/62
	4,099,923	7/11/78	Milberger	23	254 R	1/17/77
	4,705,669	11/10/87	Tsuji et al.	422	93	8/27/86
	4,869,282	9/26/89	Sittler et al.	137	15	12/09/88
	4,996,387	2/26/91	Gerhold et al.	585	654	7/20/89
	5,089,232	2/18/92	May	422	83	1/24/90
	5,252,294	10/12/93	Kroy et al.	422	102	2/03/92
	5,304,354	4/19/94	Finley et al.	422	196	11/30/92
	5,324,483	6/28/94	Cody et al.	422	131	2/02/93
	5,417,938	5/23/95	Shelden et al.	422	196	
	5,534,328	7/09/96	Ashmead et al.	428	166	12/02/93
	5,580,523	12/03/96	Bard	422	50	4/01/94
	5,589,136	12/31/96	Northrup et al.	422	102	6/20/95
	5,593,642	1/14/97	DeWitt et al.	422	131	6/05/95
	5,595,712	1/21/97	Harbster et al.	422	129	7/25/94
	5,603,351	2/18/97	Cherukuri et al.	137	597	6/07/95
	5,611,214	3/18/97	Wegeng et al.	62	498	7/29/94
	5,639,423	6/17/97	Northrup et al.	122	50	8/31/92
	5,658,537	8/19/97	Dugan	422	191	7/18/95
	5,690,763	11/25/97	Ashmead et al.	156	60	6/06/95
	5,750,906	5/12/98	Parker et al.	73	863.73	10/29/96
	5,776,359	7/07/98	Schultz et al.	252	62.51	5/08/95
	5,780,748	7/14/98	Barth	73	861.47	1/29/97
	5,811,062	9/22/98	Wegeng et al.	422	129	2/23/96
	5,833,926	11/10/98	Wurzel et al.	422	81	10/24/95
	5,842,787	12/01/98	Kopf-Sill et al.	366	340	10/9/97
	5,843,385	12/01/98	Dugan	422	191	4/02/97
	5,863,801	1/26/99	Southgate et al.	436	63	6/14/96

INFORMATION DISCLOSURE CITATION 	ATTORNEY'S DOCKET NO.: 2000-022R1	APPLICATION NO.: 09/801,390
	APPLICANT: Bergh et al.	
	FILING DATE: 3/7/2001	GROUP: 1764

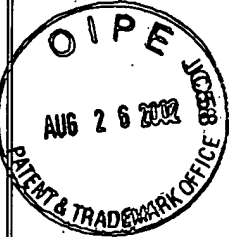
RECEIVED
 AUG 27 2002
 TC 1700

US PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,865,417	2/02/99	Harris et al.	251	11	9/27/96
	5,869,004	2/09/99	Parce et al.	422	100	6/09/97
	5,872,010	2/16/99	Karger et al.	436	173	7/03/96
	5,922,591	7/13/99	Anderson et al.	435	287.2	6/27/96
	5,927,325	7/27/99	Bensaoula et al.	137	599	10/25/96
	5,959,297	9/28/99	Weinberg et al.	250	288	10/8/97
	5,985,356	11/16/99	Schultz et al.	427	8	10/18/94
	6,004,617	12/21/99	Schultz et al.	427	8	6/07/95
	6,030,917	2/29/00	Weinberg et al.	502	104	7/22/97
	6,033,544	3/07/00	Demers et al.	204	450	11/7/96
	6,063,633	5/16/00	Willson	436	37	6/17/96
	6,087,181	7/11/00	Cong	436	37	3/16/98
	6,149,882	11/21/00	Guan et al.	422	211	6/09/98
	6,175,409	1/16/01	Nielsen et al.	356	337	4/02/99
	US-20020014106	2/07/02	Srinivasan et al.			3/07/01
	US-20020042140	4/11/02	Hagemeyer et al.			7/09/01
	US-20020045265	4/18/02	Bergh et al.			3/08/01
	US-20020048536	4/25/02	Bergh et al.			3/07/01

FOREIGN DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO	
	967,261	3/15/62	United Kingdom	B01J			
	DD 234 941 A1	4/16/86	Germany	G01N	31/10		x
	DE 27 14 939 B2	11/29/79	Germany	G01N	31/10		x
	DE 196 32 779 A1	2/19/98	Germany	G01N	35/00	x	
	DE 198 05 719 A1	8/19/99	Germany	B01J	35/04	x	
	DE 198 06 848 A1	8/19/99	Germany	B01J	35/02	x	
	DE 198 09 477 A1	9/16/99	Germany	G01N	31/10	x	
	DE 198 55 894 A1	6/08/00	Germany	B01J	35/04		x

INFORMATION DISCLOSURE CITATION PTO-1449 	ATTORNEY'S DOCKET NO.: 2000-022R1	APPLICATION NO.: 09/801,390
	APPLICANT: Bergh et al.	
	FILING DATE: 3/7/2001	GROUP: 1764

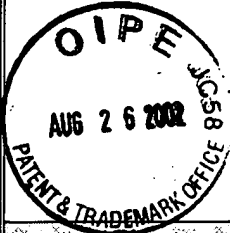
RECEIVED
AUG 27 2002
TC 1700

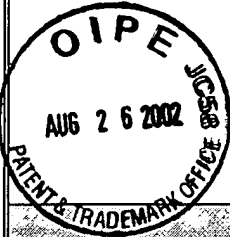
FOREIGN DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO	
	EP 0 796 654 A2	9/24/97	EPO	B01J	19/00		
	EP 0 886 143 A1	12/23/98	EPO	G01N	33/68		
	WO 96/15576	5/23/96	PCT	H02K	44/02		
	WO 97/32208	9/04/97	PCT	G01N	31/10		
	WO 98/00231	1/08/98	PCT	B01J	19/00		
	WO 98/03521	1/29/98	PCT	C07F	19/00		
	WO 98/07026	2/19/98	PCT	G01N	31/10	x	
	WO 98/13137	4/02/98	PCT	B01J	19/00		
	WO 98/13605	4/02/98	PCT	F15C	5/00		
	WO 98/16949	4/23/98	PCT	H01J	49/40		x
	WO 98/22811	5/28/98	PCT	G01N	27/26		
	WO 98/53236	11/26/98	PCT	F16K	31/126		
	WO 98/55852	12/10/98	PCT	G01N	27/26		
	WO 98/56505	12/17/98	PCT	B01L	3/00		
	WO 99/41005	8/19/99	PCT	B01J	19/00	x	
	WO 99/64160	12/16/99	PCT	B01L	3/02		
	WO 00/09255	2/24/00	PCT	B01J	19/00		
	WO 00/14529	3/16/00	PCT	G01N	31/02		
	WO 00/17413	3/30/00	PCT	C23C	14/04		
	WO 00/51720	9/08/00	PCT	B01J	19/00		
	WO 01/00315	1/04/01	PCT	B01J	19/00		

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages etc.)

	Berenschot, J.W., et al., "Micromachining of {111} Plates in <001> Oriented Silicon", <i>J. Micromech. Microeng.</i> 8 (1998) 104-107
	Brenchley, D.L. et al., "Status of Microchemical Systems Development in the United States of America", AICHE, 2 nd International Conference on Microreaction Technology, New Orleans, Louisiana, March 9-12, 1998, pp. 18-23
	Bruns, M.W., "The Application of Silicon Micromachining Technology and High Speed Gas Chromatography to On-Line Process Control", <i>MTI Analytical Instruments</i>
	Bruns, M.W., "Silicon Micromachining and High Speed Gas Chromatography", <i>IEEE</i> , 1992, pp. 1640-1644

INFORMATION DISCLOSURE CITATION  PTO-1449	ATTORNEY'S DOCKET NO.: 2000-022R1	APPLICATION NO.: 09/801,390
	APPLICANT: Bergh et al.	
	FILING DATE: 3/7/2001	GROUP: 1764
OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages etc.)		
Bryzek, J. et al., "Micromachines on the March", <i>IEEE Spectrum</i> , 1994, pp. 20-31		
Burns, J.R. et al., "Development of a Microreactor for Chemical Production", AICHE, 2 nd International Conference on Microreaction Technology, New Orleans, Louisiana, March 9-12, 1998, pp. 39-44		
Cooke, William S., 403P "Decreasing Gas Chromatography Analysis Times Using a Multicapillary Column", PITCON '96, Chicago, Illinois, March 3-8, 1996		
Franz, A.J. et al., "New Operating Regimes and Applications Feasible with Microreactors", MIT, 1997, pp. 33-38		
Greenway, G.M. et al., "The Use of a Novel Microreactor for High Throughput Continuous Flow Organic Synthesis", <i>Sensors and Actuators B</i> , 2000, pp. 153-158		
Grosjean et al., "A Practical Thermopneumatic Valve", <i>IEEE</i> , 1999, pp. 147-152		
Haswell, Stephen J. et al., "The Application of Micro Reactors to Synthetic Chemistry", <i>Chem. Commun.</i> , 2001, 391-398		
Hendrix, Charles D., "What Every Technologist Should Know About Experimental Design", <i>Chemtech</i> , 1979, pp. 167-174		
Henning, A.K. et al., "Microfluidic MEMS for Semiconductor Processing", <i>IEEE</i> , 1998, Vol. 21, pp. 329-337		
Hinderling, C. et al., "Rapid Screening of Olefin Polymerization Catalyst Libraries by Electrospray Ionization Tandem Mass Spectrometry", <i>Angew. Chem. Int. Ed.</i> , 1999, 38, No. 15, pp. 2253-2256		
Jäckel, K.-P., "Microtechnology: Application Opportunities in the Chemical Industry", <i>DECHEMA Monographs</i> , 1996, Vol. 132, VCH Verlagsgesellschaft, pp. 29-50		
Johansson, S. et al., "Nanofabrication of Model Catalysts and Simulations of their Reaction Kinetics", <i>J. Vac. Sci. Technol.</i> , 1999, A 17(1), pp. 297-302		
Klein, J. et al., "Combinatorial Material Libraries on the Microgram Scale with an Example of Hydrothermal Synthesis", <i>Angew. Chem. Int. Ed.</i> , 1998, 37(24); 3369-3372		
Lambert, R.H. et al., "Utilization of a Portable Microchip Gas Chromatograph to Identify and Reduce Fugitive Emissions at a Pharmaceutical Manufacturing Plant", <i>Field Analytical Chemistry and Technology</i> , 1997, 1(6): 367-374		
Löwe, H. et al., "Microreactor Concepts for Heterogeneous Gas Phase Reactions", AICHE, 2 nd International Conference on Microreaction Technology, New Orleans, Louisiana, March 9-12, 1998, pp. 63-73		
Matlosz, M. et al., "Microsectioned Electrochemical Reactors for Selective Partial Oxidation", AICHE, 2 nd International Conference on Microreaction Technology, New Orleans, Louisiana, March 9-12, 1998, pp. 54-59		
Oosterbroek, R.E. et al., "Utilizing the {111} Plane Switch-Over Etching Process for Micro Fluid Control Applications"		
Pérez-Ramírez, J. et al., "The Six-Flow Reactor Technology-A Review on Fast Catalyst Screening and Kinetic Studies", <i>Catalysis Today</i> , 2000, 60, 93-109		
Randhava, R. et al., "Advanced Configurations for Catalyst Research", <i>CEP</i> , 1983, pp. 52-58		
Rich et al., "An 8-Bit Microflow Controller Using Pneumatically-Actuated Valves", <i>IEEE</i> , 1999, pp. 130-134		
Sadler, D.J. et al., "A New Magnetically Actuated Microvalve For Liquid and Gas Control Applications", Center for Microelectronic Sensors and MEMS, University of Cincinnati		

INFORMATION DISCLOSURE CITATION PTO-1449 	ATTORNEY'S DOCKET NO.: 2000-022R1	APPLICATION NO.: 09/801,390
	APPLICANT: Bergh et al.	
	FILING DATE: 3/7/2001	GROUP: 1764
OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages etc.)		
	Sie, S.T., "Miniaturization of Hydroprocessing Catalyst Testing Systems: Theory and Practice", <i>AIChE Journal</i> , 1996, Vol. 42, No. 12, pp. 3498-3507	
	Srinivasan, R. et al., "Micromachined Reactors for Catalytic Partial Oxidation Reactions", <i>AIChE Journal</i> , 1997, Vol. 43, No. 11, pp. 3059-3069	
	Tonkovich, A.Y. et al., "The Catalytic Partial Oxidation of Methane in a Microchannel Chemical Reactor", <i>AIChE</i> , 2 nd International Conference on Microreaction Technology, New Orleans, Louisiana, March 9-12, 1998, pp. 45-53.	
	Wang et al., "A Parylene Micro Check Valve", <i>IEEE</i> , 1999, pp. 177-182	
	Weißmeier, G. et al., "Strategy for the Development of Micro Channel Reactors for Heterogeneously Catalyzed Reactions"	
	Wijngaarden et al., "Industrial Catalysts – Optimizing Catalysts and Processes", Wiley-VCH, Germany (1998).	
	Zdeblick et al., "Thermopneumatically Actuated Microvalves and Integrated Electro-Fluidic Circuits", TRF, Solid State Sensor and Actuator Workshop, Hilton Head, South Carolina, June 13-16, 1994, pp. 251-255	
	Zech, T. et al., "Simultaneous Screening of Catalysts in Microchannels: Methodology and Experimental Setup"	
	Zieren, M. et al., "Time-Resolved Calorimetry in a New Type of Micro Fluid Reactor Using Spatially Separated Thin-Film Thermopiles and FIA-Technique", <i>AIChE</i> , 2 nd International Conference on Microreaction Technology, New Orleans, Louisiana, March 9-12, 1998, pp. 154-163	
EXAMINER:	DATE CONSIDERED:	

Examiner: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.